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Attention: Mr. John Wadhams

Subject: Third Quarter 1992 Soil Vapor Extraction Report, Livingston Rail Yard

Dear John:

This vapor extraction report addresses Livingston Rail Yard soil vapor extraction (SVE) activities and results for the July, August, and September sampling events.

Envirocon operated five SVE systems during this reporting period. These systems are located at the in-line grit chamber, the Locomotive Shop, the main grit-chamber compound, the Electric Shop, and the cinder pile. The SVE system located at the transfer-pit manways was shut off during the last reporting period and did not operate during this quarter. The Waste Water Treatment Plant (WWTP) sump SVE system was removed in August during the sludge removal action.

This report summarizes operations of all systems through September. Included with this report are all laboratory air sample results for this reporting period and tables totalling the mass of recovered volatile organic compounds (VOCs) since the systems began operating.

Table 1.0 summarizes air sample results for samples collected during this reporting period. The values shown represent total volatile responses. The concentrations of individual VOCs detected in the influent and effluent samples are shown on the laboratory results compiled in Appendix A. Copies of the field logs for photoionization-detector readings are included in Appendix B.

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192

Tables 2.0 through 8.0 summarize VOC recovery at each SVE system since each system began operating. VOC recovery for this reporting period is shown in bold on each table. Recovery is calculated by multiplying the vapor stream concentration from the sample results by the air flow rate measured at each system and then by the number of days of operation per period of calculation. Each period of calculation correlates to one vapor-stream sample result. Two thousand five hundred and eighty-five pounds of total VOCs have been recovered since the beginning of SVE operations through this reporting period. This includes 1,799 pounds of chlorinated VOCs as identified by EPA Method 524.2 and 786 pounds of VOCs not specifically identified by EPA Method 524.2. Energy Laboratories, Inc. has indicated that the VOCs not specifically identified by Method 524.2 are C-9 to C-12 branch-chain hydrocarbons, similar to diesel fuel.

The cinder pile SVE system was operated for only 2.5 days during this quarter. This 2.5-day period consisted of a short test, during which air was injected into Riser VE-6 and extracted from Risers VE-14 and VE-17. As shown on Table 8.0, the sample collected during this test did not indicate sufficient chlorinated VOC recovery to justify carbon usage, and the system was shut off.

The transfer-pit-manway SVE system was separated from the Electric shop SVE system in October 1992. The transfer-pit system is presently operating with its own carbon units, and recovery will be reported in the fourth quarter.

Please contact me in Livingston if you have any questions or comments.

Sincerely,

John Mills
Office Manager

Kris Kok
Project Manager

JPM\pm
Enclosures
cc: Mel Burda
Dennis Iverson
Steve Pilcher
Joe Michaletz
Envirocon, Missoula

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TABLE 1.0

SVE SAMPLE RESULTS

Sample Number	Sample Date	SVE System	Total VOC Response (mg/m3)		
			Influent to Carbon Units	Between Carbon Units	Discharge to Atmosphere
140101-SG-191	7/16/92	In-Line Grit Chamber	398		
140101-SG-192	7/16/92	Locomotive Shop	40		
140101-SG-193	7/16/92	Electric Shop	185		<30
140101-SG-194	7/16/92	Main Grit Chamber Compound	<30		
140101-SG-199	7/31/92	Main Grit Chamber Compound			<30
140101-SG-200	7/31/92	Main Grit Chamber Compound		34	
140101-SG-201	7/31/92	Main Grit Chamber Compound	<30		
140101-SG-202	7/31/92	In-Line Grit Chamber			<30
140101-SG-203	7/31/92	In-Line Grit Chamber		<30	
140101-SG-204	7/31/92	In-Line Grit Chamber	<30		
140101-SG-205	7/31/92	Locomotive Shop			<30
140101-SG-206	7/31/92	Locomotive Shop		<30	
140101-SG-207	7/31/92	Locomotive Shop	40		
140101-SG-208	7/31/92	Electric Shop			>30
140101-SG-209	7/31/92	Electric Shop		77	
140101-SG-210	7/31/92	Electric Shop	186		
140101-SG-211	8/25/92	Cinder Pile	391		
140101-SG-212	9/16/92	Main Grit Chamber Compound			<30
140101-SG-213	9/16/92	Main Grit Chamber Compound		<30	
140101-SG-214	9/16/92	Main Grit Chamber Compound			<30
140101-SG-215	9/16/92	.In-Line Grit Chamber			<30
140101-SG-216	9/16/92	In-Line Grit Chamber		<30	
140101-SG-217	9/16/92	In-Line Grit Chamber	550		
140101-SG-218	9/16/92	Locomotive Shop			<30
140101-SG-219	9/16/92	Locomotive Shop		<30	
140101-SG-220	9/16/92	Locomotive Shop	32		
140101-SG-221	9/16/92	Electric Shop			<30
140101-SG-222	9/16/92	Electric Shop		<30	
140101-SG-223	9/16/92	Electric Shop	154		

TABLE 2.0

IN-LINE GRIT CHAMBER SVE RESULTS

Dates	Number of Days	Extraction Risers in Use	Carbon Units in Use	Compounds Recovered	Sample Results (mg/m3)	Air Velocity (ft/min)	Air Flow Rate (ft3/min)	VOCs Removed (#/day)	VOCs Removed (#/period)	Total VOCs (#/period)
2/26-2/28/92	1.9	VE-4,VE-5	B,I	Total VOCs	2080	5490	119.7	22.7		43.0
(2/27)	1.9	VE-6, Grit		CB	800		119.7	8.7	16.6	
	1.9	Chamber		1,2-DCB	200		119.7	2.2	4.1	
	1.9			1,4-DCB	32.5		119.7	0.4	0.7	
	1.9			1,3-DCB	16.2		119.7	0.2	0.3	
	1.9			2-CT	10.9		119.7	0.1	0.2	
	1.9			PCE	5.1		119.7	0.1	0.1	
	1.9			Xylenes	4.5		119.7	0.0	0.1	
	1.9			cis-DCE	4.4		119.7	0.0	0.1	
	1.9			1,2,4-TMB	3.4		119.7	0.0	0.1	
2/29-3/2/92	2	VE-6, Grit	B,I	Total VOCs	1360	5670	123.6	15.3		30.6
(3/1)	2	Chamber		CB	710		123.6	8.0	16.0	
	2			1,2-DCB	234		123.6	2.6	5.3	
	2			1,4-DCB	33		123.6	0.4	0.7	
	2			1,3-DCB	11		123.6	0.1	0.2	
	2			2-CT	12		123.6	0.1	0.3	
	2			PCE	2.5		123.6	0.0	0.1	
	2			1,2,4-TMB	2.5		123.6	0.0	0.1	
3/2-3/20/92	17.8	VE-6, Grit	I,L	Total VOCs	2800	5340	116.4	29.7		528.0
(3/6)	17.8	Chamber		CB	890		116.4	9.4	167.8	
	17.8			1,2-DCB	740		116.4	7.8	139.5	
	17.8			1,4-DCB	150		116.4	1.6	28.3	
	17.8			1,3-DCB	13		116.4	0.1	2.5	
	17.8			2-CT	11		116.4	0.1	2.1	
	17.8			PCE	15		116.4	0.2	2.8	
	17.8			1,2,4-TMB	4.6		116.4	0.0	0.9	
	17.8			Xylenes	3.5		116.4	0.0	0.7	
3/20-3/27/92	7	VE-6, Grit	I,L	Total VOCs	2443	5630	122.7	27.3		191.0
(3/20)	7	Chamber		CB	730		122.7	8.2	57.1	
	7			1,2-DCB	872		122.7	9.7	68.2	
	7			1,4-DCB	140		122.7	1.6	10.9	
	7			1,3-DCB	9.8		122.7	0.1	0.8	
	7			2-CT	12		122.7	0.1	0.9	
	7			PCE	3.4		122.7	0.0	0.3	
	7			1,2,4-TMB	3		122.7	0.0	0.2	
3/27-4/3/92	7	VE-6, Grit	I,L,B,N	Total VOCs	878	2586	126.7	10.1		70.9
(4/3)	7	Chamber		CB	128		126.7	1.5	10.3	
	7			1,2-DCB	280		126.7	3.2	22.6	
	7			1,4-DCB	32		126.7	0.4	2.6	
	7			1,3-DCB	7		126.7	0.1	0.6	
	7			2-CT	10		126.7	0.1	0.8	
	7			PCE	3.4		126.7	0.0	0.3	
							126.7			

TABLE 2.0, cont.

Dates	Number of Days	Extraction Risers in Use	Carbon Units in Use	Compounds Recovered	Sample Results (mg/m3)	Air Velocity (ft/min)	Air Flow Rate (ft3/min)	VOCs Removed (#/day)	VOCs Removed (#/period)	Total VOCs (#/period)
							Totals from page one:		565.2	863.5
4/4-4/25/92	21	VE-6,VE-22	L,N	Total VOCs	580	2466	120.8	6.4		133.9
(4/17)	21	Grit		CB	129		120.8	1.4	29.8	
	21	Chamber		1,2-DCB	119		120.8	1.3	27.5	
	21			1,4-DCB	21		120.8	0.2	4.8	
	21			1,3-DCB	5.3		120.8	0.1	1.2	
	21			2-CT	9.3		120.8	0.1	2.1	
	21			PCE	3.5		120.8	0.0	0.8	
4/26-5/5/92	11	VE-6,VE-22	L,N	Total VOCs	430	2701	132.3	5.2		57.0
(5/4)	11	Grit		CB	90		132.3	1.1	11.9	
	11	Chamber		1,2-DCB	79		132.3	1.0	10.5	
	11			1,4-DCB	15		132.3	0.2	2.0	
	11			1,3-DCB	4.7		132.3	0.1	0.6	
	11			2-CT	7.2		132.3	0.1	1.0	
	11			PCE	3.5		132.3	0.0	0.5	
5/5-5/22/92	14	VE-6,VE-22	N,M	Total VOCs	509	2430	119.1	5.5		77.2
(5/18)	14			CB	107		119.1	1.2	16.2	
	14			1,2-DCB	193		119.1	2.1	29.3	
	14			1,4-DCB	19		119.1	0.2	2.9	
	14			2-CT	5.6		119.1	0.1	0.8	
	14			PCE	3.6		119.1	0.0	0.5	
5/22-6/5/92	12.4	VE-6,VE-22	N,M	Total VOCs	355.2	2550	125.0	4.0		50.1
(5/29)	13.4			CB	32		125.0	0.4	4.9	
	13.4			1,2-DCB	63		125.0	0.7	9.6	
	13.4			1,4-DCB	19		125.0	0.2	2.9	
	13.4			2-CT	4.8		125.0	0.1	0.7	
	13.4			PCE	4.4		125.0	0.1	0.7	
6/5-6/19/92	11.4	VE-6,VE-22	N,M	Total VOCs	758	2520	123.5	8.5		97.1
(6/12)	11.4			CB	51		123.5	0.6	6.5	
	11.4			1,2-DCB	165		123.5	1.9	21.1	
	11.4			1,4-DCB	27		123.5	0.3	3.5	
	11.4			1,3-DCB	6.6		123.5	0.1	0.8	
	11.4			2-CT	4.3		123.5	0.0	0.6	
	11.4			PCE	4		123.5	0.0	0.5	
6/19-7/3/92	11.6	VE-6,VE-22	J,M	Total VOCs	302	2430	119.1	3.3		38.0
(6/26)	11.6			CB	15		119.1	0.2	1.9	
	11.6			1,2-DCB	220		119.1	2.4	27.7	
	11.6			1,4-DCB	8.5		119.1	0.1	1.1	
	11.6			1,3-DCB	3.3		119.1	0.0	0.4	
	11.6			PCE	2.5		119.1	0.0	0.3	
7/3-7/27/92	**22.1**	**VE-6,VE-22**	**J,M**	**Total VOCs**	**398**	**2565**	**125.7**	**4.6**		**100.6**
(7/16)	**22.1**			**CB**	**15**		**125.7**	**0.2**	**3.8**	
System off	**22.1**			**1,2-DCB**	**170**		**125.7**	**1.9**	**43.0**	
7/25-7/26	**22.1**			**1,4-DCB**	**21**		**125.7**	**0.2**	**5.3**	
System on	**22.1**			**1,3-DCB**	**9.4**		**125.7**	**0.1**	**2.4**	
(7/27)	**22.1**			**PCE**	**4.4**		**125.7**	**0.1**	**1.1**	

TABLE 2.0, cont.

Dates	Number of Days	Extraction Risers in Use	Carbon Units in Use	Compounds Recovered	Sample Results (mg/m3)	Air Velocity (ft/min)	Air Flow Rate (ft3/min)	VOCs Removed (#/day)	VOCs Removed (#/period)	Total VOCs (#/period)
							Totals from page two:		846.4	1417.3
7/27-8/1/92	3	VE4-,-VE-5	J,M	Total VOCs	6	2565	125.7	0.1		0.2
(7/31)	3			PCE	2.6		125.7	0.0	0.1	
System off	3			1,2-DCB	3.4		125.7	0.0	0.1	
(7/29)										
System on										
(7/30)										
System off										
(7/31)										
System on										
(8/11)										
System off										
(8/14)										
System on										
(8/31)										
8/11-9/30/92	34.8	VE-6,	M,I	Total VOCs	550	2340	114.7	5.7		199.7
(9/16)	34.8	VE-Tank	(8/31)	CB	23		114.7	0.2	8.4	
	34.8			Chloroform	4.3		114.7	0.0	1.6	
	34.8			1,2-DCB	130		114.7	1.4	47.2	
	34.8			1,4-DCB	17		114.7	0.2	6.2	
	34.8			1,3-DCB	5.8		114.7	0.1	2.1	
	34.8			PCE	3.9		114.7	0.0	1.4	
							VOCs Removed (2/26-9/30/92)		913.4	1617.2

Note:
(date) = Date sample was collected
Total VOCs = Total Volatile Organic Compounds
cis-DCE = cis-1,2-Dichloroethene
PCE = Tetrachloroethene
TCE = Trichloroethene
CB = Chlorobenzene
1,2-DCB = 1,2-Dichlorobenzene
1,4-DCB = 1,4-Dichlorobenzene
1,3-DCB = 1,3-Dichlorobenzene

TABLE 3.0

LOCOMOTIVE SHOP SVE RESULTS

Dates	Number of Days	Extraction Risers in Use	Carbon Units in Use	Compounds Recovered	Sample Results (mg/m3)	Air Velocity (ft/min)	Air Flow Rate (ft3/min)	VOCs Removed (#/day)	VOCs Removed (#/period)	Total VOCs (#/period)
2/26-2/28/92	1.9	VE-11,VE-12,	H,M	Total VOCs	681	5850	127.5	7.9		15.0
(2/27)	1.9	VE-28,VE-29,		cis-DCE	25		127.5	0.3	0.6	
	1.9	VE-30		PCE	620		127.5	7.2	13.7	
	1.9			TCE	10		127.5	0.1	0.2	
	1.9			Chloroform	4.5		127.5	0.1	0.1	
2/29-3/2/92	2	VE-11,VE-12,	H,M	Total VOCs	358	5850	127.5	4.2		8.3
(3/1)	2	VE-28,VE-29,		cis-DCE	5.1		127.5	0.1	0.1	
	2	VE-30		PCE	350		127.5	4.1	8.1	
	2			TCE	3.1		127.5	0.0	0.1	
3/2-3/16/92	13.7	VE-11,VE-12,	H.M	Total VOCs	183	5760	125.6	2.1		28.6
(3/6)	13.7	VE-29,VE-30,		cis-DCE	3.1		125.6	0.0	0.5	
	13.7			PCE	180		125.6	2.1	28.2	
3/16-3/27/92	11	VE-11,VE-28,	H ,M	Total VOCs	94	6000	130.8	1.1		12.3
(3/20)	11	VE-30		PCE	94		130.8	1.1	12.3	
3/28-4/10/92	13.2	VE-11,VE-28,	H,M	Total VOCs	68	2632	129.0	0.8		10.5
(4/3)	13.2	VE-29		PCE	68		129.0	0.8	10.5	
4/11-4/24/92	13	VE-11,VE-28,	H,M	Total VOCs	65	2530	124.0	0.7		9.5
(4/17)	13	VE-29		PCE	65		124.0	0.7	9.5	
4/25-5/5/92	8.2	VE-11,VE-28,	H,M	Total VOCs	48	2530	124.0	0.5		4.4
(5/4)	8.2	VE-29		PCE	48		124.0	0.5	4.4	
System off										
(5/5 -6/23)										
6/23-7/3/92	11	VE-11,VE-29,	H,F	Total VOCs	72.5	2340	114.7	0.8		8.3
(6/26)	11	Pushing air		cis-DCE	2.5		114.7	0.0	0.3	
	11	into VE-28		PCE	70		114.7	0.7	8.0	
7/3-7/24/92	**20.9**	**VE-11,VE-29,**	**H,F**	**Total VOCs**	**40**	**2340**	**114.7**	**0.4**		**8.7**
(7/16)	**20.9**	**Pushing air into VE-28**		**PCE**	**40**		**114.7**	**0.4**	**8.7**	
7/24-9/6/92	**16.7**	**VE-11,VE-29,**	**H,F**	**Total VOCs**	**40**	**2340**	**114.7**	**0.4**		**7.0**
(7/31)	**16.7**	**Pushing air into VE-28**		**PCE**	**40**		**114.7**	**0.4**	**7.0**	
9/6-9/30/92	**24**	**VE-11,VE-29,**	**H,F**	**Total VOCs**	**32**	**2250**	**110.3**	**0.3**		**7.7**
(9/16)	**24**	**Pushing air into VE-28**		**PCE**	**32**		**110.3**	**0.3**	**7.7**	
VOCs Removed (2/26-5/5/92 6/23-9/30/92)									120.1	120.5

Note:
(date) = Date sample was collected
Total VOCs = Total Volatile Organic Compounds
cis-DCE = cis-1,2-Dichloroethene
PCE = Tetrachloroethene
TCE = Trichloroethene

TABLE 4.0

MAIN GRIT-CHAMBER COMPOUND SVE RESULTS

Dates	Number of Days	Extraction Risers in Use	Carbon Units in Use	Compounds Recovered	Sample Results (mg/m3)	Air Velocity (ft/min)	Air Flow Rate (ft3/min)	VOCs Removed (#/day)	VOCs Removed (#/period)	Total VOCs (#/period)
2/26-2/28/92	1.9	VE-1,VE-2,	A,Q	Total VOCs	227	5670	123.6	2.6		4.9
(2/27)	1.9	VE-3		cis-DCE	150		123.6	1.7	3.2	
	1.9			PCE	32		123.6	0.4	0.7	
	1.9			TCE	30		123.6	0.3	0.6	
	1.9			CB	15		123.6	0.2	0.3	
2/29-3/6/92	7	VE-1,VE-2,	A,Q	Total VOCs	198	5700	124.3	2.2		15.7
(3/1)	7	VE-3		cis-DCE	96		124.3	1.1	7.6	
	7			PCE	29		124.3	0.3	2.3	
	7			TCE	27		124.3	0.3	2.1	
	7			CB	14		124.3	0.2	1.1	
3/6-3/20/92	12.9	VE-1,VE-2,	A,Q	Total VOCs	228	5670	123.6	2.6		33.1
(3/6)	12.9	VE-3		cis-DCE	104		123.6	1.2	15.1	
	12.9			PCE	42		123.6	0.5	6.1	
	12.9			TCE	21		123.6	0.2	3.0	
	12.9			CB	12		123.6	0.1	1.7	
3/20-3/27/92	7	VE-1,VE-2,	A,Q	Total VOCs	201	5445	118.7	2.2		15.2
(3/20)	7	VE-3		cis-DCE	72		118.7	0.8	5.4	
	7			PCE	39		118.7	0.4	2.9	
	7			TCE	29		118.7	0.3	2.2	
	7			CB	11		118.7	0.1	0.8	
3/28-4/11/92	14	VE-1,VE-2,	A,Q	Total VOCs	206	2593	127.1	2.4		33.3
(4/3)	14	VE-3		cis-DCE	51		127.1	0.6	8.3	
	14			PCE	49		127.1	0.6	7.9	
	14			TCE	30		127.1	0.3	4.9	
	14			CB	9.8		127.1	0.1	1.6	
4/12-4/26/92	15	VE-1,VE-2,	A,Q,R	Total VOCs	125	2421	118.6	1.3		20.2
(4/17)	15	VE-3		cis-DCE	20		118.6	0.2	3.2	
	15			PCE	33		118.6	0.4	5.3	
	15			TCE	17		118.6	0.2	2.8	
	15			CB	8.4		118.6	0.1	1.4	
4/27-5/15/92	18	VE-1,VE-2,	A,Q,R	Total VOCs	64	2685	131.6	0.8		13.8
(5/4)	18	VE-3		cis-DCE	17		131.6	0.2	3.7	
	18			PCE	32		131.6	0.4	6.9	
	18			TCE	10		131.6	0.1	2.2	
	18			CB	5.2		131.6	0.1	1.1	
5/15-5/29/92	10.5	VE-1,VE-2,	Q,R	Total VOCs	63.8	2390	117.1	0.7		7.1
(5/22)	10.5	VE-3		cis-DCE	17		117.1	0.2	1.9	
	10.5	**		PCE	30		117.1	0.3	3.4	
	10.5			TCE	13		117.1	0.1	1.5	
	10.5			CB	5.2		117.1	0.1	0.6	
5/29-6/12/92	12.6	VE-1,VE-2,	Q,R	Total VOCs	56	2520	123.5	0.6		7.9
(6/5)	12.6	VE-3		cis-DCE	13		123.5	0.1	1.8	
	12.6	**		PCE	32		123.5	0.4	4.5	
	12.6			TCE	11		123.5	0.1	1.6	

TABLE 4.0, cont.

MAIN GRIT CHAMBER COMPOUND SVE RESULTS

Dates	Number of Days	Extraction Risers in Use	Carbon Units in Use	Compounds Recovered	Sample Results (mg/m3)	Air Velocity (ft/min)	Air Flow Rate (ft3/min)	VOCs Removed (#/day)	VOCs Removed (#/period)	Total VOCs (#/period)
							Totals from page one:		119.9	151.2
6/12-6/26/92	14	VE-1,VE-2,	Q,R	Total VOCs	25.4	2520	123.5	0.3		4.0
(6/19)	14	VE-3		cis-DCE	5.1		123.5	0.1	0.8	
	14	**		PCE	17		123.5	0.2	2.7	
	14			TCE	3.3		123.5	0.0	0.5	
6/26-7/10/92	14	VE-1,VE-2,	Q,R	Total VOCs	30.2	2565	125.7	0.3		4.8
(7/2)	14	VE-3		cis-DCE	10		125.7	0.1	1.6	
	14	**		PCE	16		125.7	0.2	2.6	
	14			TCE	4.2		125.7	0.0	0.7	
7/10-7/24/92	**14**	**VE-1,VE-2,**	**Q,R**	**Total VOCs**	**25.9**	**2520**	**123.5**	**0.3**		**4.1**
(7/16)	**14**	**VE-3**		**cis-DCE**	**8.6**		**123.5**	**0.1**	**1.4**	
	14	**		**PCE**	**14**		**123.5**	**0.2**	**2.2**	
	14			**TCE**	**3.3**		**123.5**	**0.0**	**0.5**	
7/24-9/6/92	**16.7**	**VE-1,VE-2,**	**Q,R**	**Total VOCs**	**21.9**	**2520**	**123.5**	**0.2**		**4.1**
(7/31)	**16.7**	**VE-3**		**cis-DCE**	**7.4**		**123.5**	**0.1**	**1.4**	
	16.7	**		**PCE**	**12**		**123.5**	**0.1**	**2.3**	
	16.7			**TCE**	**2.5**		**123.5**	**0.0**	**0.5**	
9/6-9/18/92	**11.5**	**VE-1,VE-2,**	**D,R**	**Total VOCs**	**23.1**	**2520**	**123.5**	**0.3**		**3.0**
(9/16)	**11.5**	**VE-3**	**(8/31)**	**cis-DCE**	**8.4**		**123.5**	**0.1**	**1.1**	
	11.5	**		**PCE**	**12**		**123.5**	**0.1**	**1.6**	
				TCE	**2.7**		**123.5**	**0.0**	**0.0**	
System off (9/18)										
						VOCs Removed (2/26-9/18/92)			139.6	171.2

Note:
(date) = Date sample was collected
Total VOCs = Total Volatile Organic Compounds
cis-DCE = cis-1,2-Dichloroethene
PCE = Tetrachloroethene
TCE = Trichloroethene
CB = Chlorobenzene
** = With packers drawing from bottom 5'

TABLE 5.0

WWTP SUMP SVE RESULTS

Dates	Number of Days	Extraction Risers In Use	Carbon Units in Use	Compounds Recovered	Sample Results (mg/m3)	Air Velocity (ft/min)	Air Flow Rate (ft3/min)	VOCs Removed (#/day)	VOCs Removed (#/period)	Total VOCs (#/period)
2/7-2/8/92	1.5	VE-31,VE-32	J,G	Total VOCs	282	2151	187.8	4.8		7.2
(2/7)	1.5	VE-33		cis-DCE	112		187.8	1.9	2.9	
	1.5			trans-DCE	3.5		187.8	0.1	0.1	
	1.5			CB	3.2		187.8	0.1	0.1	
	1.5			2-CT	16		187.8	0.3	0.4	
2/9-2/10/92	1.6	VE-31,VE-32	J,G	Total VOCs	414	2151	187.8	7.1		11.3
(2/10)	1.6	VE-33		cis-DCE	75		187.8	1.3	2.1	
System off	1.6			PCE	3.7		187.8	0.1	0.1	
2/10-2/24/92	1.6			2-CT	29		187.8	0.5	0.8	
	1.6			CB	6.2		187.8	0.1	0.2	
2/24-3/12/92	14.9	VE-31,VE-32	J,G	Total VOCs	240	1350	117.9	2.6		38.4
(2/28)	14.9	VE-33		cis-DCE	47		117.9	0.5	7.5	
System off	14.9			PCE	3.4		117.9	0.0	0.5	
3/12-4/8/92	14.9			2-CT	15		117.9	0.2	2.4	
	14.9			CB	5.2		117.9	0.1	0.8	
4/8-4/20/92	12	VE-31,VE-32	J,G	Total VOCs	45	2070	180.7	0.7		8.9
(4/13)	12	VE-33,VE-34 VE-38		cis-DCE	3.8		180.7	0.1	0.7	
4/20-4/30/92	10	VE-31,VE-32	J,G	Total VOCs	101	2070	180.7	1.7		16.6
(4/27)	10	VE-33,VE-34		cis-DCE	4.7		180.7	0.1	0.8	
	10	VE-38		2-CT	5		180.7	0.1	0.8	
	10			CB	2.9		180.7	0.0	0.5	
System off (4/29)										
VOCs Removed (2/7-2/10/92 2/24-3/12/92 4/8-4/30/92)									20.7	82.4

Note:
(date) = Date sample was collected
Total VOCs = Total Volatile Organic Compounds
cis-DCE = cis-1,2-Dichloroethene
trans-DCE = trans-1,2-Dichloroethene
CB = Chlorobenzene
2-CT = 2-Chlorotoluene
PCE = Tetrachloroethene

TABLE 6.0

ELECTRIC SHOP SVE RESULTS

Dates	Number of Days	Extraction Risers in Use	Carbon Units in Use	Compounds Recovered	Sample Results (mg/m3)	Air Velocity (ft/min)	Air Flow Rate (ft3/min)	VOCs Removed (#/day)	VOCs Removed (#/period)	Total VOCs (#/period)
3/5-3/9/92	3.8	VE-19	O,P	Total VOCs	72	5850	127.5	0.8		3.2
(3/6)	3.8			cis-DCE	4		127.5	0.0	0.2	
	3.8			PCE	60		127.5	0.7	2.6	
	3.8			TCE	7.8		127.5	0.1	0.3	
3/9-3/11/92	2.4	VE-19	O,P	Total VOCs	60	5850	127.5	0.7		1.7
(3/9)	2.4			cis-DCE	2.5		127.5	0.0	0.1	
System off	2.4			PCE	52		127.5	0.6	1.4	
3/11-3/23/92	2.4			TCE	5		127.5	0.1	0.1	
3/23-3/27/92	4	VE-18-VE-20	O,P	Total VOCs	1212		40.0	4.4		17.6
(3/24)	4			cis-DCE	3.7		40.0	0.0	0.1	
	4			PCE	1200		40.0	4.4	17.5	
	4			TCE	8.1		40.0	0.0	0.1	
3/27-4/11/92	12.1	VE-18-VE-20	O,P	Total VOCs	424		40.0	1.5		18.7
(4/1)	12.1			PCE	420		40.0	1.5	18.5	
	12.1			TCE	4.2		40.0	0.0	0.2	
4/11-4/24/92	14	VE-18-VE-20	O,P	Total VOCs	226		40.0	0.8		11.5
(4/17)	14			PCE	221		40.0	0.8	11.3	
	14			TCE	4.6		40.0	0.0	0.2	
4/25-5/9/92	15	VE-18-VE-20	O,P	Total VOCs	295		40.0	1.1		16.1
(5/4)	15			PCE	291		40.0	1.1	15.9	
	15			TCE	3.7		40.0	0.0	0.2	
5/9-5/25/92	17	VE-18-VE-20	O,P	Total VOCs	150		40.0	0.5		9.3
(5/18)	17			PCE	146		40.0	0.5	9.0	
	17			TCE	4.1		40.0	0.0	0.3	
5/25-6/5/92	12	VE-18,VE-20	O,P	Total VOCs	424.4	2750	134.8	5.2		62.4
(5/29)	12	VE-23		PCE	421		134.8	5.2	61.9	
	12			TCE	3.4		134.8	0.0	0.5	
6/5-6/19/92	14	VE-18-VE-20	O,P	Total VOCs	295.4	2750	134.8	3.6		50.7
(6/12)	14	VE-23		PCE	290		134.8	3.6	49.8	
	14			TCE	5.4		134.8	0.1	0.9	
6/9-7/3/92	14	VE-18,VE-20	O,P	Total VOCs	266.7	2430	119.1	2.9		40.5
(6/26)	14	VE-23		PCE	260		119.1	2.8	39.4	
	14			TCE	6.7		119.1	0.1	1.0	
7/3-7/24/92	**21**	**VE-18,VE-20**	**O,P**	**Total VOCs**	**185**	**2475**	**121.3**	**2.0**		**42.9**
(7/16)	**21**	**VE-23**		**PCE**	**180**		**121.3**	**2.0**	**41.7**	
	21			**TCE**	**5.5**		**121.3**	**0.1**	**1.3**	
7/24-9/6/92	**16.7**	**VE-18,VE-20**	**O,P**	**Total VOCs**	**186**	**2475**	**121.3**	**2.1**		**34.3**
(7/31)	**16.7**	**VE-23**		**PCE**	**180**		**121.3**	**2.0**	**33.2**	
	16.7			**TCE**	**5.5**		**121.3**	**0.1**	**1.0**	
9/6-9/30/92	**24**	**VE-18,VE-20**	**P,A**	**Total VOCs**	**154**	**2475**	**121.3**	**1.7**		**40.8**
(9/16)	**24**	**VE-23**	**(8/31)**	**PCE**	**150**		**121.3**	**1.7**	**39.7**	
	24			**TCE**	**3.8**		**121.3**	**0.0**	**1.0**	
VOCs Removed (3/5-3/11/92 3/23-9/30/92)									349.6	349.6

Note:
(date) = Date sample was collected
Total VOCs = Total Volatile Organic Compounds
cis-DCE = cis-1,2-Dichloroethene
PCE = Tetrachloroethene
TCE = Trichloroethene

TABLE 7.0

TRANSFER-PIT MANWAY SVE RESULTS

Dates	Number of Days	Extraction Risers in use	Carbon Units in use	Compounds Recovered	Sample Results (mg/m3)	Air Velocity (ft/min)	Air Flow Rate (ft3/min)	VOCs Removed (#/day)	VOCs Removed (#/period)	Total VOCs (#/period)
3/23-3/27/92	4	VE-13	O,P	Total VOCs	575	1240	108.3	5.7		22.7
(3/24)	4			PCE	390		108.3	3.8	15.4	
	4			TCE	2.5		108.3	0.0	0.1	
	4			cis-DCE	2.5		108.3	0.0	0.1	
	4			CB	180		108.3	1.8	7.1	
3/27-4/10/92	12.1	VE-13	0,P	Total VOCs	126	1150	100.4	1.2		13.9
(4/1)	12.1			PCE	126		100.4	1.2	13.9	
4/11-4/24/92	14	VE-13	0,P	Total VOCs	86	1150	100.4	0.8		11.0
(4/17)	14			PCE	86		100.4	0.8	11.0	
4/25-5/9/92	15	VE-13	0,P	Total VOCs	70	1200	104.8	0.7		10.0
(5/4)	15			PCE	70		104.8	0.7	10.0	
5/9-5/25/92	15.8	VE-13,VE-24	0,P	Total VOCs	79	1125	98.2	0.7		11.2
(5/18)	15.8	VE-25,VE-26		PCE	79		98.2	0.7	11.2	
System off (5/25)										
VOCs Removed (3/23-5/25/92)									68.8	68.8

Note: (date) = Date sample was taken
Total VOCs = Total Volatile Organic Compounds
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-DCE = cis-1,2-Dichloroethene
CB = Chlorobenzene

TABLE 8.0

CINDER PILE SVE RESULTS

Dates	Number of Days	Extraction Risers in use	Carbon Units in use	Compounds Recovered	Sample Results (mg/m3)	Air Velocity (ft/min)	Air Flow Rate (ft3/min)	VOCs Removed (#/day)	VOCs Removed (#/period)	Total VOCs (#/period)
4/1-4/6/92	5.2	VE-7,VE-8	E,K	Total VOCs	126	1558	136.0	1.6		8.1
(4/2)	5.2	VE-9,VE-10		cis-DCE	5.1		136.0	0.1	0.3	
	5.2			2-CT	3.8		136.0	0.0	0.2	
	5.2			CB	3.4		136.0	0.0	0.2	
4/6-4/12/92	6	VE-7,VE-8	E.K	Total VOCs	427	1580	137.9	5.4		32.2
(4/6)	6	VE-9,VE-10		PCE	2.8		137.9	0.0	0.2	
	6			cis-DCE	4.3		137.9	0.1	0.3	
	6			2-CT	5.3		137.9	0.1	0.4	
	6			CB	4.3		137.9	0.1	0.3	
4/12-4/16/92	4	VE-7,VE-8	E,K	Total VOCs	224	1558	136.0	2.8		11.1
4/13)	4	VE-9,VE-10		PCE	2.5		136.0	0.0	0.1	
	4			1,1,1-TCA	2.6		136.0	0.0	0.1	
	4			cis-DCE	2.5		136.0	0.0	0.1	
	4			2-CT	6.7		136.0	0.1	0.3	
	4			CB	3.5		136.0	0.0	0.2	
	4			NA	4.2		136.0	0.1	0.2	
4/16-4/30/92	14	VE-7,VE-8	E,K	Total VOCs	349	2950	144.6	4.6		64.3
(4/28)	14	VE-9,VE-10		cis-DCE	2.6		144.6	0.0	0.5	
	14	VE-14,VE-15		2-CT	9.1		144.6	0.1	1.7	
	14	VE-16,VE-17		CB	4.8		144.6	0.1	0.9	
4/30-5/15/92	15	VE-7,VE-8	E,K	Total VOCs	190	2590	126.9	2.2		32.9
(5/13)	15	VE-9,VE-10		2-CT	12		126.9	0.1	2.1	
	15	VE-14,VE-15		CB	5.8		126.9	0.1	1.0	
	15	VE-16,VE-17		PCE	2.5		126.9	0.0	0.4	
5/15-6/5/92	21.4	VE-14,VE-15	E,K	Total VOCs	286	2580	126.4	3.3		70.4
(5/22)	21.4	VE-16,VE-17		2-CT	8.3		126.4	0.1	2.0	
	21.4			CB	5.4		126.4	0.1	1.3	
	21.4			PCE	2.5		126.4	0.0	0.6	
System off (6/5 - 8/19)										
8/19-8/21/92	**2.5**	**Injecting air**	**E,K**	**Total VOCs**	**391**	**2295**	**112.5**	**4.0**		**10.0**
(8/21)	**2.5**	**VE-16**		**cis-DCE**	**3.7**		**112.5**	**0.0**	**0.1**	
	2.5	**Vacuum on**		**2-CT**	**7.1**		**112.5**	**0.1**	**0.2**	
	2.5	**VE-14,VE-17**		**CB**	**2.8**		**112.5**	**0.0**	**0.1**	
System off (8/21)										
VOCs Removed (4/1-6/5/92 8/19-8/21/92)									14.0	229.0

Note: (date) = Date sample was taken
Total VOCs = Total Volatile Organic Compounds
PCE = Tetrachloroethene
cis-DCE = cis-1,2-Dichloroethene
CB = Chlorobenzene
2-CT = 2-Chlorotoluene
1,1,1-TCA = 1,1,1-Trichloroethane
NA - Naphthalene

APPENDIX A

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37373
DATE: 10/07/92 crp

RECEIVED
OCT 17 1992
ENVIROCON, INC.
Livingston, MT

AIR ANALYSIS

Livingston/BN, 140101-SG-223
Sampled 09/16/92 @ 0917
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	150 *
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	3.8
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	154

* Value derived from a 5x dilution.

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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FAX (406) 252-6069 • 1-800-735-4489

LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37372
DATE: 10/07/92 crp

RECEIVED
OCT 12 1992
ENVIROCON, INC.
Livingston, MT.

AIR ANALYSIS

Livingston/BN, 140101-SG-222
Sampled 09/16/92 @ 0916
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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FAX (406) 252-6069 • 1-800-735-4489

LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37371
DATE: 10/07/92 crp

RECEIVED
OCT 12 1992
ENVIROCON, Inc.
Livingston, MT

AIR ANALYSIS

Livingston/BN, 140101-SG-221
Sampled 09/16/92 @ 0915
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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mic 12/3/92

LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37370
DATE: 10/07/92 crp

AIR ANALYSIS

Livingston/BN, 140101-SG-220
Sampled 09/16/92 @ 0903
Submitted 09/17/92
Analyzed 09/23/92

Locomotive Shop Influent

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	< 2.5
Bromoform	< 2.5
Bromomethane	< 2.5
Carbon tetrachloride	< 2.5
Chlorobenzene	< 2.5
Chloroethane	< 2.5
2-Chloroethylvinyl ether	< 2.5
2-Chlorotoluene	< 2.5
Chloroform	< 2.5
Chloromethane	< 2.5
Dibromochloromethane	< 2.5
1,2-Dichlorobenzene	< 2.5
1,3-Dichlorobenzene	< 2.5
1,4-Dichlorobenzene	< 2.5
1,1-Dichloroethane	< 2.5
1,2-Dichloroethane	< 2.5
1,1-Dichloroethene	< 2.5
cis-1,2-Dichloroethene	< 2.5
trans-1,2-Dichloroethene	< 2.5
1,2-Dichloropropane	< 2.5
cis-1,3-Dichloropropene	< 2.5
trans-1,3-Dichloropropene	< 2.5
Methylene chloride	< 2.5
1,1,2,2-Tetrachloroethane	< 2.5
Tetrachloroethene	32 *
1,1,1-Trichloroethane	< 2.5
1,1,2-Trichloroethane	< 2.5
Trichloroethene	< 2.5
Trichlorofluoromethane	< 2.5
Vinyl chloride	< 2.5
Dichlorodifluoromethane	< 2.5
Total VOC Response	32

* Value derived from a 5x dilution.

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37370 dup
DATE: 10/07/92 crp

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QUALITY ASSURANCE - DUPLICATE ANALYSIS

Livingston/BN, 140101-SG-220
Sampled 09/16/92 @ 0903
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	34 *
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	34

* Value derived from a 5x dilution.

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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mic 4/2/1

LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37369
DATE: 10/07/92 crp

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AIR ANALYSIS

Livingston/BN, 140101-SG-219
Sampled 09/16/92 @ 0902
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37368
DATE: 10/07/92 cr

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Livingston, MT

AIR ANALYSIS

Livingston/BN, 140101-SG-218
Sampled 09/16/92 @ 0901
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	5.0
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37367
DATE: 10/07/92 crp

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AIR ANALYSIS

Livingston/BN, 140101-SG-217
Sampled 09/16/92 @ 0844
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	23
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	4.3
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	130 *
1,3-Dichlorobenzene	5.8
1,4-Dichlorobenzene	17
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	3.9
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	550

* Value derived from a 5x dilution.

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37366
DATE: 10/07/92 crp

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AIR ANALYSIS

Livingston/BN, 140101-SG-216
Sampled 09/16/92 @ 0843
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES

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m/c/12/92

LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37365
DATE: 10/07/92 cr

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AIR ANALYSIS

Livingston/BN, 140101-SG-215
Sampled 09/16/92 @ 0842
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES

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LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
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LAB NO: 92-37364
DATE: 10/07/92 crp

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ENVIROCON, Inc.
Livingston, Mt.

WWTP Composite

AIR ANALYSIS

Livingston/BN, 140101-SG-214
Sampled 09/16/92 @ 0807
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	8.4
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	12
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	2.7
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES

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LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37363
DATE: 10/07/92 crp

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ENVIROCON, Inc.
Livingston, MT.

WWTP Composite
3 Tuesday

AIR ANALYSIS

Livingston/BN, 140101-SG-213
Sampled 09/16/92 @ 0806
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	14
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES

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m 10/2/92

LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-37362
DATE: 10/07/92 crp

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OCT 12 1992
ENVIROCON, Inc.
Livingston, Mt.

AIR ANALYSIS

Livingston/BN, 140101-SG-212
Sampled 09/16/92 @ 0805
Submitted 09/17/92
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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m.c/12/4

LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO: Blank
DATE: 10/07/92 crp

RECEIVED
OCT 12 1992
ENVIROCON, Inc.
Livingston, Mt.

AIR ANALYSIS

Method Blank
Analyzed 09/23/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.

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FAX (406) 252-6069 • 1-800-735-4489

m 10/27/92

RECEIVED
OCT 12 1992
ENVIROCON, Inc.
Livingston, MT

October 7, 1992

Mr. Steve Sasse
Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

On September 17, 1992, these samples, represented by our laboratory numbers 92-37362 to 92-37373, were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by: Joe Harkins

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
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FAX (406) 252-6069 • 1-800-735-4489

LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO.: 92-32227
DATE: 09/21/92 crp

RECEIVED
SEP 23 1992
ENVIROCON, Inc.
Livingston, MT.

AIR ANALYSIS

Livingston/BN, 140101-SG-211
Sampled 08/21/92 @ 0905
Submitted 08/25/92
Analyzed 09/15/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	2.8
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	7.1
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	3.7
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	391

NOTE: This analysis is equivalent to EPA Method 8240.

ENERGY LABORATORIES, INC.
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FAX (406) 252-6069 • 1-800-735-4489

LABORATORY REPORT

TO: Steve Sasse
ADDRESS: Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

LAB NO.: Blank
DATE: 09/21/92 crp

RECEIVED
SEP 23 1992
ENVIROCON, Inc.
Livingston, MT

AIR ANALYSIS

Method Blank
Analyzed 09/15/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Method 8240.

ENERGY LABORATORIES

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RECEIVED
SEP 23 1992
ENVIROCON, Inc.
Livingston, Mt.

September 21, 1992

Mr. Steve Sasse
Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

On August 25, 1992, this sample, represented by our laboratory number 92-32227, was submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by:

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
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LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30371
DATE: 08/13/92 crp

AIR ANALYSIS

Livingston/BN, 140101-SG-210
Sampled 07/31/92 @ 1734
Submitted 08/04/92
Analyzed 08/06/92

RECEIVED
AUG 11 1992
ENVIROCON, Inc.
Livingston, Mt.

CONSTITUENT	mg/m³	
Purgeable Halocarbons (EPA Method 8260)		
Bromodichloromethane	<2.5	
Bromoform	<2.5	
Bromomethane	<2.5	
Carbon tetrachloride	<2.5	
Chlorobenzene	<2.5	
Chloroethane	<2.5	
2-Chloroethylvinyl ether	<2.5	
2-Chlorotoluene	<2.5	
Chloroform	<2.5	
Chloromethane	<2.5	
Dibromochloromethane	<2.5	
1,2-Dichlorobenzene	<2.5	
1,3-Dichlorobenzene	<2.5	
1,4-Dichlorobenzene	<2.5	
1,1-Dichloroethane	<2.5	
1,2-Dichloroethane	<2.5	
1,1-Dichloroethene	<2.5	
cis-1,2-Dichloroethene	<2.5	
trans-1,2-Dichloroethene	<2.5	
1,2-Dichloropropane	<2.5	
cis-1,3-Dichloropropene	<2.5	
trans-1,3-Dichloropropene	<2.5	
Methylene chloride	<2.5	
1,1,2,2-Tetrachloroethane	<2.5	
Tetrachloroethene	180	*
1,1,1-Trichloroethane	<2.5	
1,1,2-Trichloroethane	<2.5	
Trichloroethene	5.5	
Trichlorofluoromethane	<2.5	
Vinyl chloride	<2.5	
Dichlorodifluoromethane	<2.5	
Total VOC Response	186	

* Value derived from a 26.5x dilution.

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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N 8/14/92

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30370
DATE: 08/13/92 crp

AIR ANALYSIS

RECEIVED
AUG 14 1992
ENVIROCON, Inc.
Livingston, Mt.

Livingston/BN, 140101-SG-209
Sampled 07/31/92 @ 1733
Submitted 08/04/92
Analyzed 08/06/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	6.0
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	47 *
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	24
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	77

* Value derived from a 5x dilution.

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30370 dup
DATE: 08/13/92 crp

QUALITY ASSURANCE - DUPLICATE ANALYSIS

Livingston/BN, 140101-SG-209
Sampled 07/31/92 @ 1733
Submitted 08/04/92
Analyzed 08/06/92

RECEIVED
AUG 1 1 1992
ENVIROCON, Inc.
Livingston, Mt.

CONSTITUENT	mg/m³	
Purgeable Halocarbons (EPA Method 8260)		
Bromodichloromethane	<2.5	
Bromoform	<2.5	
Bromomethane	<2.5	
Carbon tetrachloride	<2.5	
Chlorobenzene	<2.5	
Chloroethane	<2.5	
2-Chloroethylvinyl ether	<2.5	
2-Chlorotoluene	<2.5	
Chloroform	<2.5	
Chloromethane	<2.5	
Dibromochloromethane	<2.5	
1,2-Dichlorobenzene	<2.5	
1,3-Dichlorobenzene	<2.5	
1,4-Dichlorobenzene	<2.5	
1,1-Dichloroethane	<2.5	
1,2-Dichloroethane	<2.5	
1,1-Dichloroethene	<2.5	
cis-1,2-Dichloroethene	6.3	
trans-1,2-Dichloroethene	<2.5	
1,2-Dichloropropane	<2.5	
cis-1,3-Dichloropropene	<2.5	
trans-1,3-Dichloropropene	<2.5	
Methylene chloride	<2.5	
1,1,2,2-Tetrachloroethane	<2.5	
Tetrachloroethene	49	*
1,1,1-Trichloroethane	<2.5	
1,1,2-Trichloroethane	<2.5	
Trichloroethene	26	
Trichlorofluoromethane	<2.5	
Vinyl chloride	<2.5	
Dichlorodifluoromethane	<2.5	
Total VOC Response	81	

* Value derived from a 5x dilution.

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30369
DATE: 08/13/92 crp

AIR ANALYSIS

Livingston/BN, 140101-SG-208
Sampled 07/31/92 @ 1732
Submitted 08/04/92
Analyzed 08/06/92

RECEIVED
AUG 14 1992
ENVIROCON, Inc.
Livingston, Mt.

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30368
DATE: 08/13/92 crp

RECEIVED
AUG 14 1992
ENVIROCON, Inc.
Livingston, Mt.

AIR ANALYSIS

Livingston/BN, 140101-SG-207
Sampled 07/31/92 @ 1722
Submitted 08/04/92
Analyzed 08/06/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	40
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	40

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NOTE: This analysis is equivalent to EPA Methods 601/8010.

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LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30367
DATE: 08/13/92 crp

AIR ANALYSIS

Livingston/BN, 140101-SG-206
Sampled 07/31/92 @ 1721
Submitted 08/04/92
Analyzed 08/05/92

RECEIVED
AUG 1 1 1992
ENVIROCON, Inc.
Livingston, Mt.

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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m 8/13/92

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30366
DATE: 08/13/92 crp

AIR ANALYSIS

Livingston/BN, 140101-SG-205
Sampled 07/31/92 @ 1720
Submitted 08/04/92
Analyzed 08/05/92

RECEIVED
AUG 14 1992
ENVIROCON, Inc.
Livingston, MT

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30365
DATE: 08/13/92 crp

RECEIVED
AUG 14 1992
ENVIROCON, INC.
Livingston, MT

AIR ANALYSIS

Livingston/BN, 140101-SG-204
Sampled 07/31/92 @ 1708
Submitted 08/04/92
Analyzed 08/05/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	< 2.5
Bromoform	< 2.5
Bromomethane	< 2.5
Carbon tetrachloride	< 2.5
Chlorobenzene	< 2.5
Chloroethane	< 2.5
2-Chloroethylvinyl ether	< 2.5
2-Chlorotoluene	< 2.5
Chloroform	< 2.5
Chloromethane	< 2.5
Dibromochloromethane	< 2.5
1,2-Dichlorobenzene	3.4
1,3-Dichlorobenzene	< 2.5
1,4-Dichlorobenzene	< 2.5
1,1-Dichloroethane	< 2.5
1,2-Dichloroethane	< 2.5
1,1-Dichloroethene	< 2.5
cis-1,2-Dichloroethene	< 2.5
trans-1,2-Dichloroethene	< 2.5
1,2-Dichloropropane	< 2.5
cis-1,3-Dichloropropene	< 2.5
trans-1,3-Dichloropropene	< 2.5
Methylene chloride	< 2.5
1,1,2,2-Tetrachloroethane	< 2.5
Tetrachloroethene	2.6
1,1,1-Trichloroethane	< 2.5
1,1,2-Trichloroethane	< 2.5
Trichloroethene	< 2.5
Trichlorofluoromethane	< 2.5
Vinyl chloride	< 2.5
Dichlorodifluoromethane	< 2.5
Total VOC Response	< 30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30364
DATE: 08/13/92 crp

RECEIVED
AUG 14 1992
ENVIROCON, Inc.
Livingston, Mt.

AIR ANALYSIS

Livingston/BN, 140101-SG-203
Sampled 07/31/92 @ 1707
Submitted 08/04/92
Analyzed 08/05/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	2.8
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	17
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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ms 8/14/92

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30363
DATE: 08/13/92 crp

AIR ANALYSIS

Livingston/BN, 140101-SG-202
Sampled 07/31/92 @ 1706
Submitted 08/04/92
Analyzed 08/05/92

RECEIVED
AUG 14 1992
ENVIROCON, Inc.
Livingston, Mt.

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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8/14/92

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30362
DATE: 08/13/92 crp

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AUG 17 1992
ENVIROCON, Inc.
Livingston, MT

AIR ANALYSIS

Livingston/BN, 140101-SG-201
Sampled 07/31/92 @ 1657
Submitted 08/04/92
Analyzed 08/05/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	7.4
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	12
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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WLS/4/9-

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30361
DATE: 08/13/92 crp

AIR ANALYSIS

Livingston/BN, 140101-SG-200
Sampled 07/31/92 @ 1656
Submitted 08/04/92
Analyzed 08/05/92

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ENVIROCON, Inc.
Livingston, MT

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	14
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	16
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	4.4
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	34

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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8/14/92

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30360
DATE: 08/13/92 crp

AIR ANALYSIS

Livingston/BN, 140101-SG-199
Sampled 07/31/92 @ 1655
Submitted 08/04/92
Analyzed 08/05/92

RECEIVED
AUG 14 1992
ENVIROCON, Inc.
Livingston, Mt.

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	5.3
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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8/14/92

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-30360 dup
DATE: 08/13/92 crp

QUALITY ASSURANCE - DUPLICATE ANALYSIS

Livingston/BN, 140101-SG-199
Sampled 07/31/92 @ 1655
Submitted 08/04/92
Analyzed 08/05/92

RECEIVED
AUG 14 1992
ENVIROCON, Inc.
Livingston, Mt.

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	4.6
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: Blank
DATE: 08/13/92 crp

AIR ANALYSIS

Method Blank
Analyzed 08/05/92

RECEIVED
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ENVIROCON, Inc.
Livingston, Mt.

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

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AUG 14 1992
ENVIROCON, Inc.
Livingston, Mt.

August 13, 1992

Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

On August 4, 1992, these samples, represented by our laboratory numbers 92-30360 to 92-30371, were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by: Deborah A Jensen

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
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m 8/31/92

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-26954
DATE: 08/28/92 af

RECEIVED
AUG 31 1992
ENVIROCON, Inc.
Livingston, MT

WWTP Composite

AIR ANALYSIS

Livingston/BN, 140101-SG-194
Sampled 07/16/92 @ 1104
Submitted 07/17/92
Analyzed 07/22/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	8.6
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	14
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	3.3
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
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m 8/3/92

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-26953
DATE: 08/28/92 af

RECEIVED
AUG 31 1992
ENVIROCON, Inc.
Livingston, MT

AIR ANALYSIS

Livingston/BN, 140101-SG-193
Sampled 07/16/92 @ 1100
Submitted 07/17/92
Analyzed 07/22/92

Shop
Laboratory

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	180 *
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	5.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	185

* Value derived from a 10x dilution.

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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W 8/31/92

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-26952
DATE: 08/28/92 af

RECEIVED
AUG 31 1992
ENVIROCON, Inc.
LIVINGSTON, MT

AIR ANALYSIS

Livingston/BN, 140101-SG-192
Sampled 07/16/92 @ 1039
Submitted 07/17/92
Analyzed 07/22/92

Locomotive Shop

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	40 *
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	40

* Value derived from a 5x dilution.

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES, INC.
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m 8/31/92

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: 92-26951
DATE: 08/28/92 af

RECEIVED
AUG 31 1992
ENVIROCON, Inc.
Livingston, MT

AIR ANALYSIS

Livingston/BN, 140101-SG-191
Sampled 07/16/92 @ 1025
Submitted 07/17/92
Analyzed 07/22/92

CONSTITUENT	mg/m³	
Purgeable Halocarbons (EPA Method 8260)		
Bromodichloromethane	<2.5	
Bromoform	<2.5	
Bromomethane	<2.5	
Carbon tetrachloride	<2.5	
Chlorobenzene	15	
Chloroethane	<2.5	
2-Chloroethylvinyl ether	<2.5	
2-Chlorotoluene	<2.5	
Chloroform	<2.5	
Chloromethane	<2.5	
Dibromochloromethane	<2.5	
1,2-Dichlorobenzene	170	*
1,3-Dichlorobenzene	9.4	
1,4-Dichlorobenzene	21	
1,1-Dichloroethane	<2.5	
1,2-Dichloroethane	<2.5	
1,1-Dichloroethene	<2.5	
cis-1,2-Dichloroethene	<2.5	
trans-1,2-Dichloroethene	<2.5	
1,2-Dichloropropane	<2.5	
cis-1,3-Dichloropropene	<2.5	
trans-1,3-Dichloropropene	<2.5	
Methylene chloride	<2.5	
1,1,2,2-Tetrachloroethane	<2.5	
Tetrachloroethene	4.4	
1,1,1-Trichloroethane	<2.5	
1,1,2-Trichloroethane	<2.5	
Trichloroethene	<2.5	
Trichlorofluoromethane	<2.5	
Vinyl chloride	<2.5	
Dichlorodifluoromethane	<2.5	
Total VOC Response	398	

* Value derived from a 10x dilution.

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
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M 8/31/92

LABORATORY REPORT

TO: Envirocon, Inc.
ADDRESS: P.O. Box 1154
Livingston, MT 59047

LAB NO: Blank
DATE: 08/28/92 af

RECEIVED
AUG 3 1 1992
ENVIROCON, Inc.
Livingston, MT

AIR ANALYSIS

Method Blank
Analyzed 07/22/92

CONSTITUENT	mg/m³
Purgeable Halocarbons (EPA Method 8260)	
Bromodichloromethane	<2.5
Bromoform	<2.5
Bromomethane	<2.5
Carbon tetrachloride	<2.5
Chlorobenzene	<2.5
Chloroethane	<2.5
2-Chloroethylvinyl ether	<2.5
2-Chlorotoluene	<2.5
Chloroform	<2.5
Chloromethane	<2.5
Dibromochloromethane	<2.5
1,2-Dichlorobenzene	<2.5
1,3-Dichlorobenzene	<2.5
1,4-Dichlorobenzene	<2.5
1,1-Dichloroethane	<2.5
1,2-Dichloroethane	<2.5
1,1-Dichloroethene	<2.5
cis-1,2-Dichloroethene	<2.5
trans-1,2-Dichloroethene	<2.5
1,2-Dichloropropane	<2.5
cis-1,3-Dichloropropene	<2.5
trans-1,3-Dichloropropene	<2.5
Methylene chloride	<2.5
1,1,2,2-Tetrachloroethane	<2.5
Tetrachloroethene	<2.5
1,1,1-Trichloroethane	<2.5
1,1,2-Trichloroethane	<2.5
Trichloroethene	<2.5
Trichlorofluoromethane	<2.5
Vinyl chloride	<2.5
Dichlorodifluoromethane	<2.5
Total VOC Response	<30

NOTE: This analysis is equivalent to EPA Methods 601/8010.

ENERGY LABORATORIES

EI _ RGY LABORATORIES, INC.

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AUG 3 1 1992
ENVIROCON, Inc.
Livingston, MT

August 28, 1992

Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

On July 17, 1992 these samples, represented by our laboratory numbers 92-26948 to 92-26957, were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by: Deborah L. Jones

APPENDIX B

In-Line Grit Chamber Fog

6/24/92 System Check
PID readings Eff 0.1
Between Carbons 0.0
Comb 290 Blower 124

6/26/92 System check + samples
0803 PID readings Eff 0.0
Between Carbons 0.0
Comb 515

6/28/92 System Check
PID readings Eff 0.0
Between Carbons 0.0
Comb 370

6/30/92 System check
PID readings Eff 0.0
Between Carbons 0.0
Comb 410

7/2/92 System check
PID readings Eff 0.0
Between Carbons 0.0
Comb 500
Flows 6000 into Blower 2700 out carbon

Car Bons

7/4/92 System check
PID readings Eff 0.0
Between Carbons 0.0
Comb 380

In-Line Grit Chamber Log

7/6/92 System check
PID readings Eff 2.1
Between Carbons 10
Comb 440

7/13/92 System check - PID readings (1615)
EFFLUENT 0.0 PPM
BETWEEN CARBON UNITS 0.0 PPM
INFLUENT (COMP.) 146 PPM
TEMP. 120°F

7/16/92 System check & sample
0820 PID readings Eff 3.2
Between Carbons 10.9
Comb 170

7/17/92 Area of influence

VE56	to	VE22	3.2"	Vac at manifold 6.3"	
VE4	to	"	2.1"	16.1"	65'
VE3	to	"	2.25"	18.7"	55'
ILGC	to	"	1.95"	17.8"	
VE6	to	"	4.6"	13.1"	30'

Flows into blower 6000 f/M out carbon 2850 f/M

7/20/92 System check
PID reading Eff 0.0
Between carbons 0.0
Comb 185

Cla-Line Grit Chamber Fog

7/22/92 System Check
PID readings Eff 4.0
Between Carbons 5.0
Comb 225

7/23/92 System check
PID Eff 1.0
Between Carbons 8.0
Comb 160

7/25
* Shut off pid readings too high

7/27
* Turned system back on
Must of been moisture off 45 hrs
* Set Closed VE6, 22 opened VE4, 5
System check
PID Eff 2.5
Between Carbons 5.5
Comb 205

65'
55'

7/28/92 Turned system off pid reading
* Eff 2.7 probably moisture
* off 24 hrs

30'

2850 f/M

7/31/92 Samples
* Shut system down 1710 NOTap

8/1/92 start system 0715
0745 PID Eff 0.0
Between Carbons 7.4
Comb 165
* VE 6, 22 Running

In-Line Grit Chamber Log

8/13/92 System Check
PID Eff 0.0
Between Carbons 0.0
Comb 130

8/14/92 Shut system down @ 13:30
Break-through first carbon unit

* 8/31/92 start system @ 10:10 with New carbon units M,I in line

9/2/92 System check
1430 PID Eff 0.0
Between Carbons 0.0
Comb 170

9/4/92 System check
1035 PID Eff 0.0
Between Carbons 1.0
Comb 200

9/6/92 System check
PID Eff 0.0
Between Carbons 0.0
Comb 175

9/8/92 System check
PID Eff 4.2
Between Carbons 18.8
Comb 181

In Line Grit Chamber Log

9/8/92 Shut off VE-22 & started running
1200 soil tank - Running tank & VE-6

9/10/92 System check
PID Eff 0.8
Between Carbon 5.7
Comb 225

9/12/92 System Check
PID Eff 4.9 Too Humid
Between Carbons 24
Com 250

9/14/92 System Check
PID Eff 4.7
Between Carbons 5.9
Comb 210

9/16/92 System Check + samples
0930 PID Eff 3.4
Between Carbons 5.4
Comb 280+

9/18/92 System check
PID Eff 0.6
Between Carbon 0.3
Comb 240+

9/20/92 System Check
PID Eff 4.9
Between Carbon 10.7
Comb 246

In-Line Exit Chamber Fog

9/22/92 System Check
PID Eff 3.9
Between Carbons 10
Comb 245

* Flows Out carbon 2600 Into carbons 4200
VE Tank 400 f/m

9/24/92 System check
PID Eff ~~0.0~~ 3.8
Between Carbons 6.8
Comb 270+

9/24/92 System Check p
PID Eff 4.7
Between Carbon 10.4
Comb 215+

9/25/92 System check
0936 PID Eff 4.8
Between Carbons 13.4
Comb 31C

9/30/92 System check
1530 PID Eff 0.0
Between Carbons 18.2
Comb 285

10/2/92 System Check
0950 PID Eff 3.3
Between Carbons 23
Comb 236

Locomotive Shop Log

6/26, '92 System check + Samples
0753 PID READINGS Eff 0.0
Between Carbons 0.0
Comb 70
P 78° V 104

6/29/92 System check
PID readings Eff 0.0
Between Carbons 0.0
Comb 65
P 80° V 108

6/30/92 System check
PID readings Eff 0.0
Between carbons 0.0
Comb 68
P 70 V 102

7/1/92 System check
PID readings Eff 2.1
Between Carbon 4.8
Comb 75
P 68 V 100
X-flows INTO Blower 6300 out carbon 2680

7/4/92 System check
PID readings Eff 0.0
Between Carbons 0.0
Comb 70
P 72 V 104

Locomotive Shop Log

7/6/92 System Check
PID readings Eff 0.0
Between Carbons 0.0
Comb 80
P 78° V 108°

7/13/92 SYSTEM CHECK - PID READINGS (1600)
EFFLUENT 3.1
BETWEEN CARBON UNITS 2.3
INFLUENT (COMB.) 2.9
TEMP INJ BLOWER 100°F
FUJI NOT OPERATING - RE-STARTED IT

7/13/92 SYSTEM CHECK (1640)
EFFLUENT 0.0
BETWN CARBON UNITS 0.0
INFLUENT 0.0
SUCTION BLOWER TEMP 120°F

7/14/92 SYSTEM CHECK - PID READINGS (0945)
EFFLUENT 0.0
BETWN CARBN UNITS 0.0
INFLUENT 21.7

7/16/92 System check + sample
PID readings Eff .6
Between Carbons .6
Comb 25.
P 83° V 110

Locomotive Shop Tests

Area of influence

70' Blowing in VE 29 Vac. on 28, 11
Vac reading on VE 12.02" Manifold Vac 14.3"

same as above except pusher blower off VE 12.0
14.4 manifold

to
Vac on VE 28 Vac reading on VE 12 .06"
manifold 14.6

Vac on VE 29 vac reading on VE 2 .06"
manifold 13.2

VE 11 acts plugged

Vac on VE 29 vac. reading VE 30.02
manifold 12.6

Vac on VE 28 Vac reading VE 30.15
manifold 14.0

Vac on VE 11, 28 Vac reading VE .03
Manifold 13.8

~~Vac on~~ same as above except blower
blowing into VE 29 Vac readin VE 23.02
manifold 13.6

Flows into blower ~~2100~~ CFM out carbon ~~2600~~ CFM

Reconstruction Shop Log

7/18/92 System check
PID readings Eff 0.0
Between Carbons 0.0
Comb 35

7/22/92 System check
PID readings Eff 1.1
Between Carbon 1.5
Comb 48

7/23/92 System check
PID Eff 0.0
Between Carbons 0.0
Comb 35
P 74 V 104

7/25/92 System check
PID Eff 0.0
Between 0.0
Comb 20

7/27/92 System check
PID Eff 2.5
Between Carbons 2.8
Comb 35
P 81 V 110

7/29/92 System check
PID Eff 0.0
Between Carbons 0.0 comb 47.7
P 81 V 110

Locomotive Shop Log

7/31/92 Samples
* Shut system down 1730 NO TIP

* 8/1/92 Start system 0710
0750 PID Eff 00
Between Carbons 00
Comb 00
P 60 V 113

8/3/92 System check
1325 PID Eff 00
Between Carbons 00
Comb 98

8/14/92 Shut system down @ 1330

8/31/92 Start system @ 1030

9/2/92 System check
1440 PID Eff 00
Between Carbons 00
Comb 15

9/4/92 System Check
1045 PID Eff 00
Between Carbons 4.5
Comb 45

9/6/92 System check
PID Eff 00
Between Carbons 4.
Comb 40

t 7

Locomotive Shop Log

9/8/92 System Check 1
PID Eff 2.1
Between Carbons 6.8
Comb 30

9/10/92 System Check
PID Eff 0.5
Between Carbons 0.0
Comb 30

9/12/92 System Check
PID Eff 0.0
Between Carbons 0.0
Comb 25

9/14/92 System Check
PID Eff 3.7
Between Carbons 3.3
Comb 25

9/16/92 System Check & samples
0852 PID Eff 4.4
Between Carbons 9.7
Comb 40+

9/18/92 System Check
PID Eff 1.8
Between Carbons 0.7
Comb 20

Locomotive Shop Log

9/20/22 System Check
PID Eff 4.4
Between Carbons 4.6
Comb 20+

9/21/22 System Check
PID Eff 0.0
Between Carbons 0.0
Comb 21+

Flows out carbon 2500 Into carbon 5600

9/24/22 System Check
PID Eff 0.0
Between Carbons 2.5
Comb 25+

9/26/22 System Check
PID Eff 3.4
Between Carbons 9.5
Comb 25+

9/28/22 System Check
0415 PID Eff 4.7
Between Carbons 12.7
Comb 354

9/30/22 System Check
1515 PID Eff 3.3
Between Carbons 1.9
Comb 25

WWTP Compound Log
(Main Grit Chamber Compound)

6/24/92 System check
PID readings Eff 0.0
Between Carbons 3.7
Comb 45

6/26/92 System check
PID readings Eff 0.0
Between Carbons 5.0
Comb 50

6/28/92 System check
PID readings Eff 0.0
Between Carbons 11
Comb 43

6/30/92 System check
PID readings Eff 0.0
Between Carbons 15
Comb 45

7/1/92 System check + samples
PID readings Eff 1.0
Between Carbons
Comb 70
Flows Into blower 6200 out carbon 2850

7/4/92 System check
PID readings Eff 0.0
Between Carbons 14
Comb 55

WWTP Compound Log
(Main Grit - Chamber Compound)

7/6/92 System check
PID readings Eff 0.0
Between Carbons 4.6
Comb 85

7/13/92 SYSTEM CHECK - PID READINGS (16/5)
EFFLUENT: 0.0 PPM
BETWEEN CARBON UNITS 8.2 PPM
INFLUENT (COMB) 10.6 PPM
TEMP. 120°F

7/16/92 System check + sample
Pid Readings Eff 0.0
Between Carbons 7.8
Comb 35 Temp

	Area of influence		vac AT Manifold	
Vac:	VE1 to VE35 .07"		18.2"	70'
	VE2 to VE35 .04-05"		18.8"	45'
	VE3 to VE35 .03"		≈ 26"	35'
	VE1,23 to VE35 .045"		7.9"	

Flows into blower 6300 F/M out carbon 2800 F/M

7/16/92 System check
PID readings Eff 0.4
Between Carbons 19
Comb 50

WWTP Compound Log
(Main Grit Chamber Compound)

7/22/92 System check
PID readings Eff 2.0
Between Carbons 21
Comb 45

7/23/92 System check
PID Eff 0.0
Between Carbons 19
Comb 40

7/25 System check
PID Eff 0.0
Between Carbons 14
Comb 43.

7/27/92 System check
PID Eff 4.8
Between Carbons 31
Comb 70

7/29/92 System check
PID Eff 2.0
Between Carbons 9.8
Comb 60

7/31/92 samples
* 1655 Shut down No Tkp

* 8/1/92 started system 0720
PID Eff .3
Between Carbons 3.8
Comb 88

(WTP Compound Log
(Main Grit Chamber Compound)

8/13/92 System check
1300 PID Eff 0.0
Between Carbons 11.0
Comb 30

8/14/92 shut system down @ 13:30
* Breakthrough first carbon unit

8/31/92 start System @ 10:00
with New Carbon units *D,R inline

9/2/92 systemcheck
1420 PID Eff 0.0
Between Carbons 0.0
Comb 35

9/4/92 System Check
1023 PID Eff 0.0
Between Carbons 12.
Comb 124

9/6/92 System check
PID Eff 0.0
Between Carbons 0.0
Comb 40

9/8/92 System check
PID Eff 3.2
Between Carbons 10.8
Comb 36

WWTP Compound Log
(Main Grit Chamber Compound)

9/9/92 Flows INTO blower 6200
Out Carbon 2800

9/10/92 System Check
PID Eff 0.0
Between Carbons 3.5
Comb 35

9/11/92 System Check
PID Eff 1.7
Between Carbons 7.7
Comb 35

9/14/92 System Check
PID Eff 1.7
Between Carbons 7.1
Comb 25

9/15/92 System Check + samples
0800 PID Eff 1.4
Between Carbons 7.4
Comb 35+

9/16/92 System check
PID Eff 0.0
Between Carbons 3.1
Comb 28+
* shut system down 0730

Electric Shop Fog

6/26/92 System check + samples
0737 PID readings Eff 3.0
Between Carbon 2.6
Comb 102

6/28/92 System check
0 PID readings Eff 0.0
Between Carbons 0.0
Comb 116

6/30/92 System check
PID readings Eff 0.0
Between Carbons 0.?
Comb 84

7/2/92 System check
PID readings Eff 3.0
Between Carbons 5.2
Comb 115
X Flows into blower 6500 out carbon 2700

7/4/92 System check
PID readings Eff 0.0
Between Carbons 0.0
Comb 100

7/6/92 System check
PID readings Eff 0.0 1.0
Between Carbons 1.5
Comb 125

Electric Shop Log

7/14/92 SYSTEM CHECK - PID READINGS (0930)

EFFLUENT 0.0
BETWN CARBON UNITS 0.0
INFLUENT 46.8
TEMPERATURE 106°F

7/16/92 System check + samples
PID readings Eff 0.0
Between Carbons 0.0
Comb 50

Area of influence
Vac on VE 20 vac reading on VE 24 .01
VE 26 .015
120 - 180' VE 13 03
VE 25 0
All open .02

Flows INTO blower 6400 30'
out carbon 2750 20'

VE 23 2.3
VE 18 4.4

2700

7/18/92 System check
1000 pid readings Eff 0.0
Between carbons 0.0
Comb 50

7/21/92 System check
PID readings Eff 0.0
Between Carbons 0.0
Comb 42.7

Electric Shop Log

7/24/92 System Check
PID Eff 0.0
Between Carbons 0.0
Comb 40

7/25 System check
PID 0.0
Between Carbon 1.0.3
Comb 40

7/27/92 System check
PID Eff 0.0
Between Carbons 7.5
Comb 25

7/28/92 System check
PID Eff 0.0
Between Carbons 24
Comb 130

7/31/92 Samples
* Shut system down 1745 No Tip

8/1/92 Start system up 0705
0800 PID Eff 0.0
Between Carbons 3.8
Comb 120

8/13/92 System Check
1340 PID Eff 0.0
Between Carbons 0.0
Comb 50

Electric Shop Log

9/1/92 Shut system off @ 1330
Breakthrough in first carbon unit

8/31/92 Start system @ 1630 with carbon units P/A inline

9/2/92 System check
1430 PID Eff 0.0
Between Carbons 0.0
Comb 60

9/4/92 System check
1530 PID Eff 0.0
Between Carbons 0.0
Comb 75

9/6/92 System Check
PID Eff 0.0
Between Carbons 0.0
Comb 50

9/8/92 System check
PID Eff ~~4to~~ SS 0.0
Between Carbons ~~to~~ SS 0.0
Comb 62

9/10/92 System check
PID Eff 0.0
Between Carbons 0.0
Comb 53

Electric Shop Log

9/12/92 System Check
PID Eff 0.0
Between Carbons 0.0
Comb 96

9/14/92 System Check
PID Eff 0.0
Between Carbons 0.0
COMB 43

9/16/92 System Check + samples
one PID Eff 0.0
Between Carbons 0.0
Comb 65+

9/18/92 System Check
System off when I got here
off?

9/20/92 System Check
PID Eff 3.4
Between Carbons 5.0
comb 36+

9/22/92 System Check
PID Eff 0.0
Between Carbons 0.0
comb 46

Flows out carbon 2750 into carbon 6

Electric Shop Fog

9/24/92 System Check
PID Eff 0.0
Between Carbons 0.0
Comb 25

9/26/92 System Check
PID Eff .4
Between Carbons 5.1
Comb 45+

9/28/92 System Check
0651 PID Eff 3.1
Between Carbons 10
Comb 65+

9/30/92 System Check
1500 PID Eff. 0.0
Between Carbons 0.0
Comb 55

10/2/92 System Check
0440 PID Eff 0.0
Between Carbons 0.0
Comb 45+

10/4/92 System Check
PID Eff 3.3
Between Carbons 5.6
Comb 25+

10/6/92 System Check
PID Eff 0.0
Between Carbons 0.0 comb 25

0564

Cinder Pile Log

6/5/92 System check
0802 PID readings Eff 0.0
Between Carbons 18
Comb 100
Shut system off 0830

* 7/23/92 System start 1050
Blowing in VE 15
Vacuum on VE 14 16
PID Eff 2.0
Between Carbons 35
Comb 310
P 112 V 118
Shut system off 1500
VE 15 bentonite seal Leaking

8/19/92 System start
Blowing in VE 16
Vacuum VE 14 17
PID Eff 0.0
Between Carbons 46
Comb 132
P 120 V 113
flow out carbon 2550

2/2/93 System check + sample
PID Eff 0.0
Between Carbons 48
Comb 150